MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1, 2022/2023 (TERM ID 2210)

DEC5114 – MICROECONOMICS

(All sections / Groups)

08 FEBRUARY 2023
2.30 p.m – 4.30 p.m
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This Question paper consists of 11 pages with 2 sections:
   Section 1: FORTY (40) multiple choice; and
   Section 2: THREE (3) structure questions only.

2. Attempt **ALL** questions. All questions carry equal marks and the distribution of the marks for each question is given.

3. Please write all your answers in the Answer Booklet provided.

SECTION 1: MULTIPLE CHOICE QUESTIONS

1. According to the law of diminishing marginal utility, which of the following is true?
   A. Total satisfaction decreases as more units of a good are consumed.
   B. The additional satisfaction received from consuming extra units of a good decreases as consumption of the good increases.
   C. The additional satisfaction received from consuming extra units of a good increases as consumption of the good increases.
   D. When marginal utility is decreasing, total utility is decreasing.

2. In the short run, which of the following costs must continuously decrease as output produced increases?
   A. Total variable cost
   B. Total fixed cost
   C. Average variable cost
   D. Average fixed cost

3. In which of the following market structures do firms recognize their mutual interdependence?
   A. Oligopoly
   B. Monopoly
   C. Perfect competition
   D. Monopolistic competition

4. Assume that a profit-maximizing firm is perfectly competitive in both the output and the factor markets and is at its long-run equilibrium. The firm's output is 100 units, its total revenue is $600, and the fixed cost of production is $50. Based on this information, which of the following is true for the firm?
   A. Its marginal cost is $5.50, and its average total cost is $5.50.
   B. Its marginal cost is $5.50, and its average variable cost is $5.50
   C. Its marginal cost is $6, and its average total cost is $5.50.
   D. Its marginal cost is $6, and its average variable cost is $5.50.

5. At a firm's current rate of output, the marginal cost is $65, the average variable cost is $35, the average fixed cost is $30, and the product price is $65. Which of the following statements is true for the firm?
   A. Economic profits are zero because marginal revenue equals marginal cost.
   B. Economic profits are negative because total revenue is less than total cost.
   C. Economic profits are zero because price equals average total cost.
   D. Economic profits are positive because total revenue is greater than total cost.

Continued ...

6. Which of the following best describes an oligopolistic market?
   A. Many sellers with identical products and no barriers to entry.
   B. Many sellers, each with a clearly differentiated product, and no barriers to entry.
   C. A few competing sellers with similar products and high barriers to entry.
   D. A few competing sellers with significant barrier to entry.

7. Most economists argue that a monopoly is inefficient because it _____.
   A. produces too little output and sets a price above marginal cost
   B. has no incentive to minimize its costs
   C. earns too much profit by charging consumers any price it wants
   D. produces too much output and thus wastes scarce resources

8. In order to minimize short-run losses, a profit-maximizing firm will necessarily shut down production under which of the following conditions?
   A. Total revenue is less than total cost.
   B. Marginal cost is greater than average total cost.
   C. Average revenue is less than average variable cost.
   D. Average revenue is less than average total cost.

9. If a firm's production process exhibits economies of scale, which of the following will occur when the firm's output increases?
   A. Its short-run average total costs will rise.
   B. Its short-run average total costs will fall.
   C. Its long-run average total costs will rise.
   D. Its long-run average total costs will fall.

10. In monopolistic competition, which of the following most accurately describes the long-run equilibrium conditions for a firm?
   A. P > ATC, MR = MC, and P > MC.
   B. P > ATC, MR > MC, and P = MC.
   C. P = ATC, MR = MC, and P > MC.
   D. P = ATC, MR > MC, and P > MC.

11. A monopolistically competitive firm advertise in order to _____.
   A. shift the demand curve for its product to the left
   B. make the demand for its product less price elastic
   C. make its product more similar to its competitors'
   D. reduce the industry's barriers to entry

12. Which of the following is a variable cost in the short run?
   A. Rent on the factory.
   B. Wages paid to factory labor.
   C. Interest payments on borrowed financial capital.
   D. Payment on the lease for factory equipment.

Continued ...

13. When marginal costs are below average total cost, _____.
    A. average fixed costs are rising
    B. average total costs are falling
    C. average total costs are rising
    D. average total costs are minimized

14. For a competitive firm, marginal revenue is _____.
    A. total revenue divided by the quantity sold
    B. equal to the quantity of the good sold
    C. average revenue divided by the quantity sold
    D. equal to the price of the good sold.

15. Which of the following is not a characteristic of a competitive market?
    A. There are many buyers and sellers in the market.
    B. The goods offered for sale are largely the same.
    C. Firms generate small but positive economic profits in the long run.
    D. Firms can freely enter or exit the market.

16. Table 1

Number of Workers	Total Output of Coal (per ton)
0	0
1	25
2	44
3	60
4	70
5	75

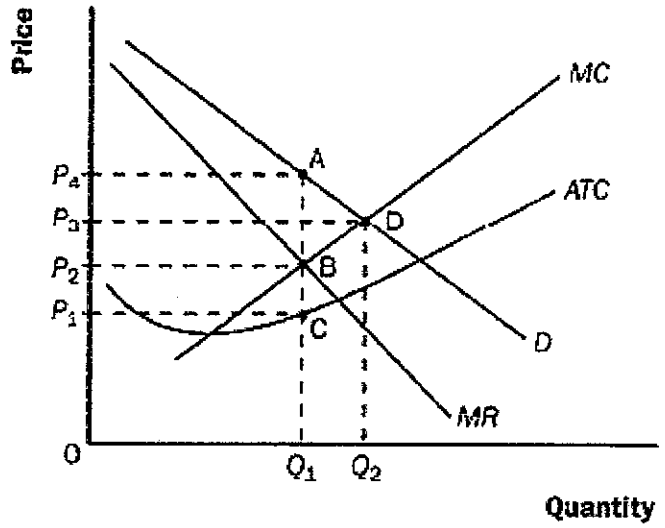
Refer to Table1. How many workers would the coal company want to hire if the price of coal were competitively priced at $5 per ton and the wage rate were $50 per worker?
    A. 5
    B. 4
    C. 3
    D. 2

17. Which of the following is not a barrier to entry in a monopolized market?
    A. A single firm is very large.
    B. The government gives a single firm the exclusive right to produce some good.
    C. The costs of production make a single producer more efficient than a large number of producers.
    D. A key resource is owned by a single firm.

Continued ...

18. Marginal revenue product (MRP) is the _____.
    A. additional output generated by employing an additional factor unit
    B. additional profit generated by employing an additional factor unit
    C. additional revenue generated by employing an additional factor unit
    D. additional cost generated by producing an additional unit output

19. Figure 1



Refer to Figure 1. The profit-maximizing monopolist will choose the price and quantity represented by point _____.
    A. A
    B. B
    C. C
    D. D

20. Refer to Figure 1. The efficient price and quantity are represented by point _____.
    A. D
    B. A
    C. B
    D. C

21. Compared to a perfectly competitive market, a monopoly market will usually generate _____.
    A. higher prices and lower output
    B. higher prices and higher output
    C. lower prices and lower output
    D. lower prices and higher output

Continued ...

22. Which of the follow statements about price discrimination is not true?
    A. Perfect price discrimination generates a deadweight loss.
    B. Price discrimination requires seller must be a price maker.
    C. Price discrimination requires that the seller to be able to separate buyers according to their willingness to pay.
    D. Price discrimination increases a monopolist's profits.

23. If marginal revenue exceeds marginal cost, a monopolist should _____.
    A. increase output
    B. decrease output
    C. keep output the same because profits are maximized when marginal revenue exceeds marginal cost
    D. raise the price

24. When a firm operates with excess capacity _____.
    A. it must be a perfectly competitive firm
    B. it must be a monopolistically competitive firm
    C. additional production would increase the average total cost
    D. additional production would lower the average total cost

25. If, as the industry expands, a competitive industry can supply larger quantities at the same long-run market price, it is _____.
    A. a decreasing-cost industry
    B. a fixed-cost industry
    C. an increasing-cost industry
    D. a constant-cost industry

26. If marginal cost equal average total cost, _____.
    A. average total costs are falling
    B. average total costs are rising
    C. average total costs are maximized
    D. average total costs are minimized

27. The term "derived demand" refers to the idea that a change in _____.
    A. demand for one good will affect the demand for related goods
    B. demand for one good is affected by the supply of that good
    C. demand for one good will affect the demand for the factors used to produce that good
    D. supply of a factor will affect the demand for that factor

28. Accounting profit is equal to total revenue minus _____.
    A. variable costs
    B. implicit costs
    C. the sum of implicit and explicit costs
    D. explicit costs

Continued ...

29. Which of the following is true concerning the substitution effect of a decrease in price?
    A. It always will lead to an increase in consumption.
    B. It will lead to an increase in consumption only for a normal good.
    C. It will lead to an increase in consumption only for a Giffen good.
    D. It will lead to an increase in consumption only for an inferior good.

30. If the wage rate is below the equilibrium wage rate, the quantity of labor demanded is _____ the quantity of labor supplied.
    A. greater than
    B. less than
    C. equal to
    D. the negative of

31. Table 2

Number of Workers	Output
0	0
1	23
2	40
3	50

Refer to Table 2. The marginal product of labor as production moves from employing one worker to employing two workers is _____.
    A. 0
    B. 10
    C. 17
    D. 23

32. Refer to Table 2. Identify the concept used to explain the productivity of output against the number of workers employs.
    A. Constant marginal product of labor.
    B. Diminishing marginal product of labor.
    C. Increasing returns to scale.
    D. Decreasing returns to scale.

33. If there are implicit cost of production, _____.
    A. accounting profit will exceed economic profit
    B. economic profit will always be zero
    C. economic profit will exceed accounting profit
    D. accounting profit will always be zero

Continued ...

34. Resource allocative efficiency occurs when a firm _____.
    A. produces the quantity output at which price exceeds average total cost
    B. minimized costs of production but charges the highest possible price
    C. produces the quantity of output at which price equals marginal cost
    D. produces the quantity of output at which price equals average variable cost

35. The marginal physical product (MPP) of a variable input is _____.
    A. total output divided by the quantity of the input used
    B. the change in total output that results from changing the fixed input by one unit
    C. the change in total cost divided by the change in quantity of output
    D. the change in total output that result from changing the variable input by one unit

36. Figure 2

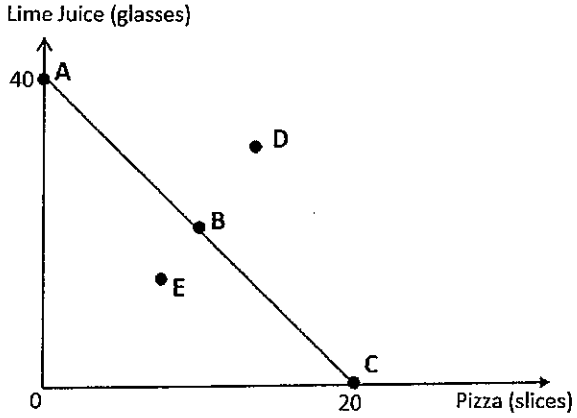


Figure 2 shows the monthly budget constraint for George. Given his current monthly income, he cannot purchase the bundle of goods at point _____.
    A. A
    B. B
    C. E
    D. D

37. Refer to Figure 2. George's budget constraints is AC. Hic choice set includes all points _____.
    A. bounded by the triangle area OAC
    B. along the vertical and horizontal axes
    C. along budget constraint AC
    D. to the right of budget constraint AC

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38. According to the kinked demand curve theory, if a firm _____ its price, other firms will _____, but if the firm _____ its price, the other firms will _____.
    A. raises; also raise their prices; lowers; also lower their prices
    B. raises; lower their prices; lowers; lower their prices further
    C. lowers; also lower their prices; raises; not change their prices
    D. lowers; not change their prices; raises; also raise their prices

39. Minimum efficient scale refers to the _____.
    A. smallest plant size a firm can utilize and still maintain production
    B. lowest output level at which average total costs are minimized
    C. output level at which long run average total cost (LRATC) curve touches each short run average total cost (SRATC) curve
    D. output level with smallest plant size

40. The difference between the maximum a person is willing to pay and current market price is known as _____.
    A. market surplus
    B. consumer surplus
    C. producer surplus
    D. nonprice surplus

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SECTION 2: STRUCTURAL QUESTIONS

QUESTION 1

(a) Dave has $300 to spend each month on DVD and Pizza. DVD and Pizza currently have a price of $10 each, and Dave is maximizing his utility by buying 20 DVDs and 10 Pizzas.

(i) Use a budget constraint-indifference curve diagram to illustrate Dave's utility maximizing condition. (Note: DVD is on vertical axis.) (2 marks)

(ii) Suppose Dave still has $300 to spend, but the price of a DVD rises to $15. Is Dave better or worse off than he was before the price change? Illustrate your answer using the same diagram drawn for (i). (3 marks)

(iii) Explain the substitute and income effects for DVDs due to the rises of the price of DVD, assuming DVDs are normal good. Illustrate your answer using the same diagram drawn for (i). (5 marks)

(b) Using the supply and demand curves of labor, explain the effect on the number of workers and wage rate for each of the following events:

(i) An increase in the demand of agricultural products due to the subsidies provided by government. (5 marks)

(ii) The government has legalized the illegal workers in the country recently. (5 marks)

[Total: 20 marks]

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QUESTION 2

(a) Jamie decides to open his own retailer store using his RM150,000 personal savings that earned interest of RM5,500 per year. In order to do so, he quits from working as a marketing executive where he earned RM85,000 annually. He also cancels the rental contract worth RM40,000 per year to setup his own store. He estimated costs of running the store are RM35,000 for equipment, RM10,000 for utilities, RM14,500 for supplies, and RM6,000 for internet services. At the end of the year, he estimates will make RM270,000 in total revenue.

(i) Calculate Jamie's accounting profit and economic profit. (6 marks)

(ii) Discuss whether Jamie should quit his job and start the retailer store business. (4 marks)

(b) Table 3 below shows incomplete cost information for the production of Good A.

Quantity (units)	Fixed Cost (RM)	Variable Cost (RM)	Total Cost (RM)	Marginal Cost (RM)
0			160	-
1		50		
2		75		
3			260	
4				60
5			385	
6		300		

Reproduce the complete table above. (10 marks)

[Total: 20 marks]

Continued ...

QUESTION 3

(a) Company STS is the only firm in the market selling product ACT. Table 4 below shows the total revenue and total cost of Company STS at various quantities of outputs.

Quantity	Total Cost (RM)	Total Revenue (RM)
1	30	39
2	55	76
3	83	111
4	116	144
5	151	175

(i) Compute the marginal cost and marginal revenue of Company STS for each level of output. (5 marks)

(ii) Identify the market structure for Company STS. Justify. (2 marks)

(iii) Determine the profit-maximising output and profit earned by Company STS. (3 marks)

(b) With appropriate diagrams, compare the demand curve of perfect competition and monopolistic competition firms. (4 marks)

(c) Discuss TWO (2) similarities and TWO (2) differences between oligopoly and monopoly market characteristics. (6 marks)

[Total: 20 marks]

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